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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,192	12/01/2000	Richard G. Ogier	SRI-009C	4499

7590 06/17/2004  
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EXAMINER

TON, ANTHONY T

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/728,192

Applicant(s)

OGIER, RICHARD G.

Examiner

Anthony T Ton

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTIONS***

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 11-28 are** rejected under 35 U.S.C. 103(a) as being unpatentable over **Vu** (US Patent No. 5,056,085) in view of **Mahany et al.** (US Patent No. 5,657,317)

a) **In Regarding to Claim 11:** **Vu disclosed** a method of operating a network having a plurality of nodes, comprising:

maintaining in a receiving node a neighbor table comprised of each known neighbor node of the receiving node and the communication status of each known neighbor node (*see col.8 lines 21-34*);

receiving a message containing an address of a new sending node (*see col.5 lines 14-19*);

transmitting a NEIGHBOR message that includes an address of the receiving node to said new sending node (*see col.3 lines 45-49 and col.8 lines 35-39*);

receiving a NEIGHBOR ACK message from said new sending node (*see col.7 lines 6-10, and col.5 lines 41-44: Due to their brevity, Ack Scout packets may be piggybacked and redundantly transmitted for added reliability (hence, the receiving node would receive a NEIGHBOR ACK message from said new sending node)*);

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updating said neighbor table to reflect discovery of said new sending node and communication status of said new sending node (*see col.2 lines 53-59, col.3 lines 22-26, col.4 lines 25-30, and col.8 lines 42-51*); and

**Vu failed to explicitly disclose** the message that is a HELLO message and the method comprising a step of transmitting at least one HELLO message comprising only a list of neighbor nodes that have communication status changes.

**Mahany et al. disclosed** such a HELLO message and such a step of transmitting at least one HELLO message comprising only a list of neighbor nodes that have communication status changes (*see col.25 lines 27-34*).

**It would have been obvious** to one of ordinary skilled in the art can employ such a HELLO message and such a step of transmitting at least one HELLO message comprising only a list of neighbor nodes that have communication status changes throughout the scout packet of Vu, as taught by Mahany et al., so that a list of active neighbor nodes in communications networks can be maintained properly, **the motivation being** to reduce overhead bandwidth in a communications network.

**b) In Regarding to Claim 12: Vu further disclosed** the method of claim 11, wherein each of said at least one HELLO message includes the address of the receiving node, wherein neighbor nodes in the heard status have been heard by the receiving node but have not been determined to have heard a previous HELLO message from the receiving node (*see col.5 lines 24-28*).

**Vu failed to explicitly disclose** wherein each of said at least one HELLO message includes a list of neighbor nodes that have their communication status changed to a heard status.

**Mahany et al. disclosed** such an each of said at least one HELLO message includes a list of neighbor nodes that have their communication status changed to a heard status (*see col.25 lines 27-34 (the same as in claim 1)*).

**It would have been obvious** to combine Vu and Mahany et al. for the same reason as in Claim 11.

c) **In Regarding to Claim 13: Vu further disclosed** the method of claim 11, wherein each of said at least one HELLO message includes the address of the receiving node, wherein neighbor nodes have been heard by the receiving node and have been determined to have heard a previous HELLO message from the receiving node (*see col.5 lines 24-26 and col.4 lines 15-30*).

**Vu failed to explicitly disclose** wherein each of said at least one HELLO message includes a list of neighbor nodes that have their communication status changed to a symmetric status.

**Mahany et al. disclosed** such an each of said at least one HELLO message includes a list of neighbor nodes that have their communication status changed to a symmetric status, and wherein neighbor nodes in the symmetric status have been heard by the receiving node (*see col.25 lines 27-34, and col.38 lines 16-28: handshake between the computing terminal and other network device (hence symmetric status)*).

**It would have been obvious** to combine Vu and Mahany et al. for the same reason as in Claim 11.

d) **In Regarding to Claim 14:** The claimed subject matters of this claim are similar to that of the claim 13, except for a list of neighbor nodes that have their communication status

changed to a lost status, and wherein a neighbor node is determined to be in the lost status when a HELLO message containing the address of that neighbor node has not been heard by the receiving node in a predetermined period of time. However, **Vu disclosed** such an exception (*see col.5 lines 29-34: designated Ack Scout Timer (hence, a predetermined period of time), and 48-57: enter Null for those neighbor nodes from which has not been received an Ack Scout packet (hence, loosen nodes)*)).

e) **In Regarding to Claim 15: Vu further disclosed** the method of claim 14, wherein the predetermined period of time corresponds to a HELLO-INTERVAL period multiplied by a predetermined number K (*see col.8 lines 10-42: periodically designating one of the data packets as a scout packet for establishing broadcast routes to the receiving nodes; initiating a first time interval having a predetermined duration for receipt of acknowledgements of receipt of the scout packets; and initiating a second time interval having a predetermined duration for receipt of acknowledgements of receipt of the scout packets by the other receiving nodes (hence a predetermined period of time corresponds to a Hello-interval period multiplied by a predetermined number K, in this case  $K = 2$  since two time intervals)*)).

**It would have been obvious** to combine Vu and Mahany et al. for the same reason as in Claim 11.

f) **In Regarding to Claim 16: Vu further disclosed** the method of claim 14, further comprising subsequently transmitting at least one HELLO message containing the address of the receiving node but not the address of a neighbor node that was previously in the list of neighbor nodes in the lost state (*see col.4 lines 15-18, col.5 lines 48-57, and col.6 lines 17-27*)).

g) **In Regarding to Claim 17: Vu further disclosed** the method of claim 14, further comprising subsequently transmitting at least one HELLO message containing a list of neighbor nodes in a lost status, wherein that list of neighbor nodes includes a neighbor node that was in a previous list of neighbor nodes in a heard status (*see col.4 lines 15-18, col.5 lines 48-57*).

h) **In Regarding to Claim 18: Vu further disclosed** the method of claim 14, further comprising subsequently transmitting at least one HELLO message containing a list of neighbor nodes in a lost status, wherein that list of neighbor nodes includes a neighbor node that was in a previous list of neighbor nodes in a symmetric status (*see col.4 lines 15-18, col.5 lines 48-57, and col.7 line 6-10*).

i) **In Regarding to Claim 19: Vu further disclosed** the method of claim 14, further comprising subsequently transmitting at least one HELLO message containing a list of neighbor nodes in a symmetric status, and wherein that list of neighbor nodes includes a neighbor node that was in a previous list of neighbor nodes in a heard status (*see col.4 lines 15-30, col.7 lines 6-10, and col.5 line 50 - col.6 line 27*).

j) **In Regarding to Claims 20-28:** The claimed subject matters of these claims are the same as that of the claims 1-19, respectively. Therefore, the rejections on the claims 1-19 would also apply to these claims in a method as taught.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 11-28 have been considered but are moot in view of the new ground(s) of rejection.


**Examiner Information**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony T. Ton whose telephone number is 703-305-8956. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W Olms, can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ATT  
6/11/2004

  
Phirin Sam